

# **PATENT**

## **SODA-LIME-SILICA GLASS COMPOSITION, ESPECIALLY FOR PRODUCING SUBSTRATES.**

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### **ABSTRACT**

The present invention relates to a glass composition intended for the manufacture of thermally stable substrates or plates that comprises the constituents given below, in the following proportions by weight :

SiO <sub>2</sub>	67 - 75 %
Al <sub>2</sub> O <sub>3</sub>	0.5 - 1 %
ZrO <sub>2</sub>	2 - 7 %
Na <sub>2</sub> O	2 - 9 %
K <sub>2</sub> O	4 - 11 %
MgO	0 - 5 %
CaO	5 - 10 %
SrO	5 - 12 %
BaO	0 - 3 %
B <sub>2</sub> O <sub>3</sub>	0 - 3 %
Li <sub>2</sub> O	0 - 2 %

with the relationships :

$$\text{Na}_2\text{O} + \text{K}_2\text{O} > 10 \%$$

$$\text{MgO} + \text{CaO} + \text{SrO} + \text{BaO} > 12 \%$$

and said composition having a thermal expansion coefficient between  $80$  and  $90 \times 10^{-7}/^{\circ}\text{C}$ .  
It also relates to the use of these glass compositions for the production of substrates, especially for emissive displays and for fire-resistant glazing.